THE CANNED FOODS AUTHORITY

The Canning Trade

THE BUSINESS JOURNAL OF THE CANNING AND ALLIED INDUSTRIES

SINCE 1878

AUGUST 12, 1946

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S. G. CORSLIE
CANNING MACHINERY & SUPPLIES ASSO.
LOCK BOX 430
BATTLE CREEK, MICH.

The odd case of the 6-sided coffee cans

IN SPITE of the barnacles, it was a can of coffee, sure enough.

The married couple from Warren, Ohio, who found it on the beach at Fort Lauderdale, Florida, could plainly read the label. They had found it just above the high-tide mark. That, plus the encrusted barnacles, told them it had been washed up from the sea.

ENEMY ACTION

This happened on June 4th, 1942—the height of the close-in submarine warfare off the Atlantic Coast.

Before June was over, a total of twenty cans of a well-known brand of coffee had been found in the vicinity—all intact, all covered with barnacles, and—this is a curious part—all six-sided, instead of round, in shape.

It was never known on what ship this coffee was sunk, but the can code numbers showed it had been packed about a year before in Houston, Texas; and pressure tests at American Can Company's laboratories proved the cans had been about 1500 feet under water.

The pressure tests also revealed that such cans under such pressure usually become 6 or 7 sided.

DRANK IT

Both the people, who found the coffee in Florida, and American Can scientists opened the vacuum cans and made coffee with the contents.

The coffee was fresh. The cans had "held." No air or water had harmed the cans' contents because of the cans' protection and vacuum pack!

MORAL

The extraordinary punishment these vacuum cans received is something that happens once in a business lifetime. The moral, however, is plain: *No other container protects like the can*—in this case, a *Canco* can.

For only Canco has the facilities for research and product development which made the coffee can and many other types of containers possible, practical, and commercial.

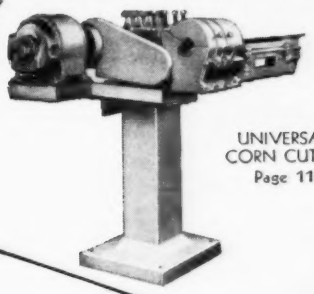
A Canco representative will gladly explain to you the benefits of doing business with the leader in metal packages.

AMERICAN CAN COMPANY (CANCO) **NEW YORK · CHICAGO · SAN FRANCISCO**

For food—no other container protects like the can

THE CANNING TRADE is published every Monday by THE CANNING TRADE, Inc., 20 S. Gay St., Baltimore 2, Md. Arthur I. Judge, Manager and Editor; Arthur J. Judge, Advertising Manager; Edward E. Judge, Circulation Manager. Yearly Subscription price; U. S. A.—$3.00; Canada—$4.00; Foreign—$5.00. Advertising rates upon application. Forms close Wednesday; cover forms Tuesday. Copy required for proof ten days in advance of close. Entered as Second Class matter at the Post Office, Baltimore, Md., under Act of March 3rd, 1879.

"Take a Leaf" from the FMC Book



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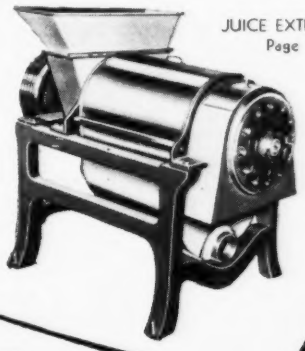

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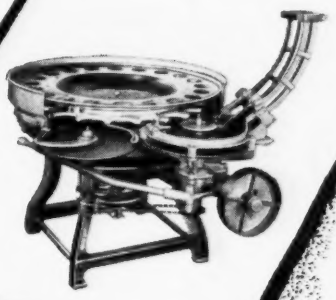

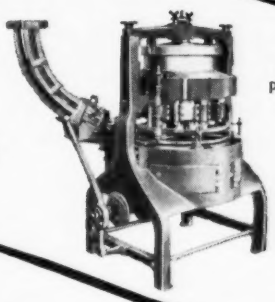

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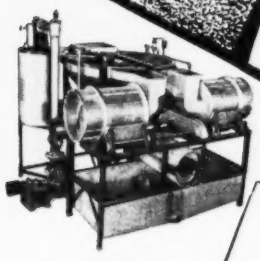

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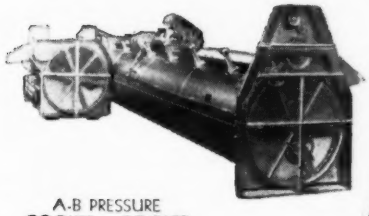

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for BIGGER PROFITS *in the* DAYS AHEAD

Drawing upon the whole food world for guidance, and the whole manufacturing world for materials, the makers of FMC equipment are able to build with an eye to the future. They are mindful of changing food processing methods and changing public tastes, of the need for more and finer products, of the need for economy in all its forms. Thus, when you choose FMC, you get equipment that will not only work but EARN through many tomorrows.

Send for your Free copy of the FMC Catalog describing most complete line of machinery for processing and packaging corn, peas, beans, tomatoes, fruits, many other products.

Food Machinery Corporation

SPRAGUE-SELLS DIVISION • Hoopeston, Illinois

BRANCHES—NEW YORK - BALTIMORE - SAN JOSE, CALIF.

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It's full page and in four colors! Runs in leading magazines! Tells all about Continental's wide variety of products for home and industry. Through its one policy—"best in quality, best in service"—the Continental family grows bigger and bigger.

Cans that keep food wholesome..... And caps with colors gay
...bre drums for industry... And cups you throw away!
...E MADE BY CONTINENTAL CAN COMPANY
MEMO
Continental serves behind the scenes... behind the labels of America's finest products

THE CANNING TRADE THE BUSINESS JOURNAL OF THE CANNING AND ALLIED INDUSTRIES

Published Every Monday Since 1878 • ARTHUR I. JUDGE, *Editor* • VOLUME 69, NUMBER 3

ADDRESS ALL CORRESPONDENCE BALTIMORE 2, MD.

EDITORIALS

FAMINE STILL STALKS—Many in our rich and well fed country seem unable to bring themselves to believe that famine is right now taking toll in lives, and what may be even worse, in the spread of diseases of the worst sort, in many countries which formerly knew only plenty and comfort. There are those, even, who resent the shipment of canned foods to these "ferriners," as well as other foods, for fear that they themselves may be forced to go without. A groundless fear in fact, as all statistics show. In fact these very objectors will proudly boast that we are the best fed nation on earth, and that is true; but we ought to have enough human pity, not to say Christian charity, to view the desperate situation among these former prosperous people and be willing not only to share a portion of our abundance, but if need be to tighten our belts and thus get out more food than we have thus far done. Starvation is a terrible thing, about which no one in this country really knows anything, at least from experience, but we have reliable testimony from those who have been on the spot over there, that want and starvation, and the long trail of starvation-induced diseases, are eating into the very life blood of our brothers—they are in want, and what must happen to us if we refuse to send even the surplus that we might very easily do? They were our comrades in arms, our allies, but it is of the women and children about whom we worry most. They are the innocent victims of a war which certainly they did not want, but upon whom the penalty falls heaviest.

They helped us when we most needed help—manpower and materials, and thus helped save thousands of lives of our boys who otherwise might have been lost. While doing this their countries were ravished, their crops destroyed or consumed, and they have had to struggle against mined-fields before they could plant the necessary food crops, and in striving to do that work they found themselves short of farming materials, seeds and fertilizers. This trouble has not been cured by long shot, and the least we could do would be to help feed these valiant men, and their even more valiant women who are giving their lives to save their children. This is the penalty of war, but fortunately—or as Saint Philip Neirie said it: "But for the grace of God, there might we be".

A late appeal? No. Let us quote from the USDA: "Help American Farmers Save the World from Famine". Read:

"*Food*: The world food crisis is not over. President Truman's Famine Emergency Committee says that the world food situation *thru* 1947 will call for a continuation of the vigorous measures now being carried on. There is increasing agreement in the belief that it will be 1950 *before normal food stocks are restored.*

"*President Truman* says: 'The crisis is not over. Cooperation and a determined effort by the public—by each one of us—must be continued thru the coming months of hunger abroad.'

"*D. A. FitzGerald,* secretary general of the International Emergency Food Council says: 'The world food emergency is not yet over. It *will still be in an acute stage* until the 1946 crops are harvested, and in a less acute stage *until* 1947 *crops are in.*'

"*Leslie A. Wheeler,* director Office of Foreign Agricultural Relations, says: 'Careful utilization of all food products must be continued to avoid a critical food shortage prior to availability of 1947 crops.'

"*Chester C. Davis,* chairman of President Truman's Famine Emergency Committee says: 'The United States has made an impressive record—more than fulfilled its commitments—in shipping food supplies abroad for famine relief, but any feeling that the world food crisis has been ended by that success is *wholly unwarranted.*'

"*Director Joseph S. Davis,* of Leland Stanford's world famous Food Research Institute says: 'The *food crisis* is not just another ballyhooed emergency exaggerated out of all relation to the truth. *It is real, huge and dangerous.*' "

Canned foods, because of their safety, *i.e.,* ability to withstand hard travel, and be ever ready to go to the front where food is most needed, without refrigeration or other food saving devices, are the great answer to this world-wide appeal. They can succor the needy, and if you would have a commercial twist to this real charity—we might be laying a solid foundation for increased canned foods business in Europe, when these emergencies pass, yes, even before. And the canners are responding splendidly. Canned foods are moving to the hungry front in Europe, Asia and Africa, and the world will bless our canners for this good work.

These goods need not be fancies. Often there is more food value in a can of standards than in a can of fancy, but let them be good, safe goods, so that they may stand the rigors they must face in these more or less destroyed countries. And they must be carefully and well processed, as we have pointed out before,

because the shaking up they will get in their travels from your plant to the food front, will test the best of them. And it would be worse than useless to start goods which would be found spoiled when they reached their goals.

PEACE—There is some peace of soul now that Congress has gone home, and we need not sit in fear and trembling that they will bring out some more troublesome laws. It is a thankless job to serve this public, for the wages of political popularity seem to be: to serve as a target for all the mud that the brainless and worse, so called citizens, can hurl at them. "They are damned if they do and they are damned if they don't," and people try to tell us that that is democracy. That would be a perversion of democracy's intent: the right to criticise; because the right to criticize stems back to the obligation of knowing what you are criticising, or at least thinking you understand. In other words not just blurting out offense, and accusations, as seems to be the rule in most instances. Too often the critics do not know what they are talking about.

IN PASSING—Since corned beef hash, meat stews, tamales and chili con carne normally contain more than 20 per cent meat, they are free from price control, at least until August 21, the Office of Price Administration has said. This statement is made to correct an OPA press release which indicated that these products are under price ceilings.

An increase of 2.8 cents a pound in processors' ceiling prices on macaroni and noodle products was announced August 2nd by the Office of Price Administration. The increase is effective August 2, 1946.

This action will result in an increase to consumers of about two cents on the usual 8 ounce box of macaroni, and about one cent on the smaller sized packages of noodles, OPA said.

The increase reflects the higher costs of wages and raw materials to the processor. Indirect costs also have been raised as result of curtailed production due to limitations on grain usage during the famine emergency, and to a sharp decline in the supply of durum flour. This flour is the basic ingredient generally used in the production of macaroni and noodles.

The Price Decontrol Board August 2nd outlined the procedures it will follow in public hearings beginning at 9:30 A.M., EST, Monday, August 12, on the question of whether livestock, grain, milk, cottonseed and soybeans, and their food or feed products, should continue free of price control after August 20.

The hearings will be held in Room 318, Senate Office Building, Washington, D. C., and will last four days.

Purpose of the hearings is to afford opportunity for affected industries, consumers to present their views, orally or in writing, on whether these commodities should be recontrolled. They were specifically exempt by the Price Control Extension Act of 1946, which also requires the Board to order their continued decontrol unless it finds that:

1. Their prices have risen unreasonably above a price equal to the lawful maximum price in effect on June 30, 1946, plus the amount per unit of any subsidy payable as of June 29, 1946; and
2. They are in short supply and their regulation is practicable and enforceable, and
3. The public interest will be served by regulation.

If the Board does not direct, on or before August 20, continued decontrol of any such commodity, recontrol automatically becomes effective August 21.

How would you like the job of pricing two or three hundred thousand different items—quick, just like that, when asked?

CONTINENTAL CAN PROFITS

Consolidated profits of Continental Can Company, Inc., and subsidiaries for the twelve months ended June 30, 1946, before depreciation, depletion and income taxes were $9,642,511, compared with $23,436,400 earned before depreciation, taxes and appropriation for inventory price decline or other contingencies, in the twelve months ended June 30, 1945, Carle C. Conway, chairman of the board and president announced today.

After deducting $5,629,203 for depreciation and depletion, and $436,545 to cover the estimated amount required to be added to the reserve for income taxes, net earnings were $3,576,763. Deducting from this amount, dividends of $562,500 on the $3.75 cumulative preferred shares, left $3,014,263 applicable to the common stock, equivalent to $1.05 per share on the 2,861,581 common shares of $20.00 par value outstanding at June 30, 1946.

These earnings compare with net earnings for the corresponding twelve months' period ended June 30, 1945, of $7,641,238, equivalent to $2.62 a common share after deducting preferred dividends of $159,375.

They also compare with net earnings applicable to the common stock for the twelve months ended March 31, 1946, of $3,421,161 equivalent to $1.20 per common share.

In making this announcement, Mr. Conway said that shortages of materials and increased costs of both labor and material have affected the results from operations in the first six months.

"Although Government approval was recently received for an upward adjustment from the present low level of prices, little, if any, of the benefit from this will be reflected until next year," Mr. Conway said.

TAYLOR WINS PATENT SUIT

The Federal Court of Appeals, 2nd Circuit, has reversed a decision of the Federal District Court and dismissed the bill of complaint made by the Foxboro Company of Foxboro, Mass., against the Taylor Instrument Companies. The suit involved the Mason patent held by the Foxboro Company which the Court declared ineffective inasmuch as it covered nothing patentable over the prior work of earlier scientists.

The original suit brought in the Federal District Court in 1944 involved three patents. The bill of complaint was dismissed on two of them in November of that year. Appeal was taken on the third by Taylor and it is on this patent that the Court has just upheld the Companies' contention by dismissing the bill of complaint.

The Fulscope air-operated instrument around which the suit centered is used in industrial processes to control automatically temperature, pressure, humidity, flow and liquid level, and is used widely in such industries as canning, oil, chemical, dairy, rubber, textile and paper making.

In its long history of 95 years this is only the second suit brought against Taylors for patent infringement, and in both instances the company has been vindicated.

Water Supply, Sewage & Industrial Wastes

The very latest in plant sanitation methods taken with permission from a project sponsored by National Canners Association and used for the curriculum of the special plant sanitation course at the University of California.

From
"A Sanitation Manual
for Food Industries"
84 pages, Price $1.00

Published by
University of California Press
Berkeley 4, Calif.

Water Supply

Food manufacturing plants use water in great quantities, either as a part of food preparation or for cleaning and washing purposes, and therefore it is essential that an ample supply of "good" water be provided. The desirability of water depends largely on the bacterial, chemical, odor, and flavor contents, and if a source cannot be found which meets the requirements in these regards, certain purification treatments must be applied to make it suitable.

Characteristics of Water and Their Control Potability

A. *Definition.* A potable water is one which contains no bacteria capable of causing human intestinal diseases and is aesthetically satisfactory for drinking purposes (free from undesirable odors, flavors, chemicals, etc.). Potable water should be provided for drinking purposes, and for washing of food and food handling equipment.

B. *Use of nonpotable water.* A nonpotable water supply may be installed for fire protection or other purposes which do not involve the food, but if such supply is provided, it must be marked as such and should not be used for drinking, washing, or clean-up purposes.

Use of sea water. Sea water is rather commonly used for fluming and washing of salt-water fish and is not considered objectionable as long as it is reasonably pure. It is suggested that a standard be adopted which will meet purity and *E. coli* requirements specified for "good" bathing beaches (less than 50 *E. coli* per 100 ml.), and that the water be obtained far enough out from shore to prevent contamination with municipal or cannery wastes. It is desirable to construct the line so that water is obtained at a level about 10 feet below the surface, because by such an arrangement floating debris and sea-floor growths are avoided.

C. *Cross connections and contamination of potable water supply.* There are many ways in which cross connections and contamination of potable water may result. Some of them are listed below:

1. *Direct connections.* A direct connection of a potable water supply to a nonpotable water supply with only a valve between them is a bad but common practice in many plants. Under no circumstances should the potable water supply be connected directly or indirectly with the nonpotable water supply.

2. *Back siphonage.* Back siphonage is one of the commonest ways in which potable water may be contaminated. This type of contamination results from a sucking back of contaminated water into the supply line through outlets, owing to a drop in pressure in the water line. Back siphonage is possible in all installations where the inlets are below the highest possible level of the water in the fixtures, as in toilet bowls, and in certain types of sinks, gutters, flumes, and washing equipment. To prevent this type of contamination, siphon breakers should be installed in the water lines for toilet and similar equipment, and all other installations should be of a type that does not permit the possibility of back siphonage.

Drinking fountains with bulbs below rims. A potable water supply may be contaminated by a back siphonage from the bowl of a drinking fountain when the water inlet is below the rim of the bowl and the bowl is filled with water because the outlet is clogged.

Use of improper precautions in the laboratory. Potable water may be contaminated with undesirable material from a laboratory by a back siphonage when a hose extension on the water inlet is allowed to remain below the surface of nonpotable solutions in pans, jars, sinks, etc.

3. *Use of a common water hose for several purposes in a plant.* If a hose has been used for carrying nonpotable water, it should never be used for carrying potable water.

4. *Piping of sewage over potable water.* Piping of sewage over potable water-storage tanks may lead to contamination of the potable water from leaks in the sewer line.

5. *Potable water primer and lubrication connections on pumps for nonpotable water.* Potable water primers on pumps used for pumping nonpotable water may cause contamination of the potable water if the primer line is not closed and the pressure created by the nonpotable water pump exceeds that in the potable water line.

6. *Water-sewage ejectors.* Water ejectors when used for moving sewage or other nonpotable water may contaminate the potable water line by back siphonage if the water pressure drops.

D. *Water-borne diseases.* Many human pathogens can survive for long periods of time in water and may be carried from one person to another in this way. Of particular importance are the organisms which cause human intestinal diseases, such as the typhoid bacillus (typhoid fever). Contamination of water with these organisms usually results from human feces which have found their way into the water. Some of the ways in which water may be contaminated with these organisms are discussed below:

1. *Wells.* Wells may become contaminated by surface water, owing to improper sealing around the casing at the ground level, or because contaminated water follows ground strata to the underground reservoir for the well. To control well contamination the following steps should be taken:

a. Seal the casing to a concrete block at the top and slope the block and surrounding area so that water will always run away from the casing and well.

b. Extend the casing above the ground level so that surface water cannot run into it.

c. Seal the pump motor to the casing so that water cannot run under the motor and into the well.

d. Extend the casing deep enough to seal off all possible underground contamination (at least below the first hardpan).

e. Locate the well at least 100 feet from all sewers, cesspools, or other sources of contamination.

2. *Reservoirs, streams, and springs.* These water sources may become contaminated with disease-producing organisms in several ways, as follows:

a. By people defecating directly into the water.

b. By people defecating on land where the fecal material will be washed into the streams by runoff waters.

c. By location of privies, cesspools, or sewers above the water source so that seepage or runoff from these areas will find its way into the water.

The control of such sources of contamination is not always easy. Privies, cesspools, etc., can be moved, but there is no way of controlling habits of fishermen or hunters.

E. *Methods of testing water for potability*:

1. *The E. coli test.* This test is used as a check on contamination of water with human fecal material. The test organism is always present in human feces and therefore its presence in water is usually indicative of such contamination. However, sound judgment must be used in interpreting results from this test because coliforms are also found in the feces of birds and other animals, and therefore water which gives a positive coli test should be investigated further to determine the source of the contamination.

The procedure for making this test will not be discussed here, but can be found in the *Standard Methods of Water and Sewage Analysis* published by the American Public Health Association. However, proper sampling procedures are essential, and therefore some of the important steps in taking a sample are listed below:

a. The sample bottle should be of about 4-ounce capacity and should be fitted with a glass stopper.

b. The top of the bottle and stopper should be covered with a metal foil or paper to protect it from contamination.

c. The bottle should be sterilized in a laboratory either by autoclaving or boiling for 20 minutes.

d. *Collecting sample from a faucet.* Turn on the water and let it run gently for several minutes; remove stopper from bottle (do not let hands come in contact with water, stopper, or lip of bottle), and fill the bottle about three-fourths full.

Collecting sample from reservoir. Hold bottle with hand near bottom of bottle and submerge quickly to about 6 inches; move bottle forward while taking the sample so that water touching the hand will not enter the bottle.

Collecting sample from a deep well. Flame outside of bottle quickly and lower into the well by a string to obtain sample.

e. After sample has been taken, insert stopper into bottle and tie a string around the neck (over foil) so that the foil will hold the stopper in place.

f. If the sample is to be run within 6 hours, no icing is needed, but if a longer holding time is necessary the sample should be held on (not in) ice.

g. Tag the bottle and ship to the laboratory making the test. Include on the tag the source of the water, the date of collection, what tests are desired, the name of the collector, and to whom the report should be sent.

2. *Hardness.* Hardness or mineral content of water is determined by chemical procedures. For a discussion of these methods, see chapter x of this manual, and the *Standard Methods of Water and Sewage Analysis* published by the American Public Health Association.

3. *Odor and flavor.* Odor and flavor as they affect potability can be determined merely by tasting the water.

F. *Standards for drinking water.* Standards for drinking water are contained in the U. S. Public Health Service *Reprint* No. 2440 (from Public Health *Reports*, Vol. 58, No. 3, January 15, 1943, pp. 69-111). To include the standards in this manual would require too much space.

Total Bacterial Count

A. *Importance.* The total bacterial counts on water are important because the total number of organisms present in water often has a bearing on the amount of spoilage. This is especially true for water that is used for cooling purposes: a high contamination of this water will often result in spoilage, because cans which have imperfect seams often suck in small amounts of water.

B. *Sampling.* The same sampling technique should be used for taking total count samples as that described above for *E. coli* tests, except that the samples should be iced immediately and should be run within a few hours after sampling.

Odors and Flavors in Water

A. *Cause.* The odor and flavor of water are caused by dissolved organic and inorganic chemicals, and by the by-products of waterplant life (algae, etc.).

B. *Importance.* Flavors and odors of water are of economic as well as aesthetic importance, because those which often result from the presence of phenols or phenol-like compounds will impart flavors to the product. This is especially true when the water is chlorinated because chlorine unites with phenol to produce a strongly flavored chlorophenol (the taste resembles the smell of carbolic acid). Only very small amounts of these chlorophenols produce undesirable flavor.

C. *Source of substances producing flavor and odor*:

1. Industrial wastes: oils, gases, salts, toxic chemicals, etc.

2. Bacterial growth on organic matter in water; H_2S (hydrogen sulphide gas), etc.

3. Algae, plankton, etc., growing in water: fish, earthly, phenolic, and other flavors.

4. Steeping of leaves, stems, etc., in water: leafy, woody flavors.

D. *Control*:

1. *Aeration.* Some odors and flavors can be removed from water by aeration, especially when they result from dissolved gasses.

2. *Oxidation.* Many of the substances which produce odors and flavors in water can be oxidized to odorless and flavorless compounds by use of the following: chlorine, chlorine dioxide, ozone, potassium permanganate, activated carbon or charcoal. Of these substances chlorine is most widely used. It has been demonstrated that "break-point" chlorination (described below) will suffice to eliminate most odors and flavors. From the information available it appears that chlorine dioxide is one of the best materials to remove odors and flavors. As its value becomes more widely known, its use will probably become more popular.

3. *Control of algae.* Covering of water-storage tanks to keep out sunlight will practically prevent the growth of algae and hence will eliminate the off flavors produced by their growth. In large bodies of water, or in running water, the growth of algae can be controlled by the addition of copper sulfate. However, this substance must be used with caution because it is poisonous to man and animals. (Above 3 p.p.m. will kill fish.)

4. *Control of source.* Odors and flavors resulting from industrial sources can sometimes be eliminated by better treatment of the industrial waste.

Water Treatment for Purification

A. *Rapid sand filtration*:

1. *Steps in the operation*:

a. Coagulation with chemicals such as: alum (potassium aluminum sulfate), aluminum sulfate, ferric chloride, ferrous sulfate plus lime, etc.

b. Sedimentation and removal of coagulated sediment.

c. Filtration at rapid rate (125,000,000—200,000,000 gallons per acre per day).

d. Cleaning the filter bed is accomplished by reverse flow of clear water through the sand.

2. *Advantages.* This method is quite rapid and permits flexibility in filtration. Also, this treatment of water removes 98-99 per cent of the bacteria and 99 per cent of the turbidity.

B. *Disinfection of water with chlorine.* Treatment of water with chlorine will, under proper conditions, kill the bacteria and render the water safe for drinking purposes. Chlorination may be applied to a filtered water to insure complete safety, or it may be used to "purify" an unfiltered water and render it safe for drinking purposes. When water is questionable, chlorination is advised.

Chlorine is commonly added to water in one of three forms, namely: as liquid chlorine, as a hypochlorite, or as a chloramine. Of these three forms liquid chlorine is the most economical to use on a large scale. Chloramines are used in certain industries where a slow action of chlorine is desired (icing of fish). The hypochlorites are handy to use for chlorinating small bodies of water because a solution of the material can be admitted to the water by dripping it from a porcelain or wax-lined container.

1. *Chlorinating with liquid chlorine.* If liquid chlorine is used, an accurate apparatus must be provided for dispensing it so that the chlorine content of the water can be controlled accurately. Ex-

(Please turn to page 20)

Pointers for Selecting a Retail Salesman

Keep an open mind and weigh suggestions—Some things to look for in making your selection—By BETTER PROFITS.

It probably seems to you that when the time comes to start a salesman covering retail trade for your brands that you will have little difficulty in securing a competent one at once. Here are thousands of returned service men looking for good positions and your firm is well known in its home city. Well, three months ago the writer applied to USES, told of our needs for a salesman to open a new sales department, offered thorough training and waited for applicants. No one has shown up yet. Four months ago we registered with the Students Aid Bureau at a large university in town and one salesman came in, underwent training and is producing.

YOUR SITUATION

Of course, your needs are different. You will employ a salesman on full time, paying him a salary and commission. Already you have some one in mind and in fact have probably sounded him out and feel confident that when you are ready to start a man he will come with you at once. Well, better be sure you have a salesman and not an order taker!

There are thousands of so called salesmen occupying good positions who are only kidding themselves as to their ability as sales representatives. They have worked for years for firms in the food field who are national advertisers; for firms whose brands are well known. Goods have been scarce in many lines, allocations have been the order of the day, we have been operating in a seller's market. Anyone having wanted goods to deliver has been more than welcome in any sales outlet. Some day this situation will reverse itself and selling on the part of the canner will again be in order. And only the salesmen of high calibre will be worth their salt.

BE CAREFUL

Among the many men looking for openings on sales forces today you have a number who have held fine positions in the past, they have been successful to a high degree but for some reason or another the openings in their specialty are pretty well filled or non existent. They will offer their services to you and can talk a good line, maybe you will succumb and hire one of them. In other instances you will be high pressured by applicants who have a lot of new ideas as to how they can quickly increase your sales volume. Our best advice is, go slowly in either instance when it comes to placing one in the foregoing categories on your payroll.

Since last spring I have been closely associated with a man who was a whiz in his own business before the war. He came with an old organization, is a good talker, is young, has a fund of splendid ideas about how business can be gotten in different ways, all of them varying widely from those time tried all over the United States. In addition, no doubt because of his success in the past, he is rather set in his ideas. The splendid organization in the office before he came has rapidly been dissipated until he is surrounded by new men, some of them anxious to make good and doing so only because of the assistance of older employees who are familiar with the routine of selling as it has been done in the past. Soon he will be on his way to try out his unorthodox plans for sales work in some other organization.

KEEP AN OPEN MIND

Now do not misunderstand me. A few years ago a friend went to work for a man at the head of a "one man" enterprise. To the dozens of sound suggestions this employe made to his boss, there was a single answer. "Humph, we tried that and it did not work." Do not be an old fogey and against everything in sales because your father possibly, worked in some other way. Have an open mind but search your memory as to the soundness of suggestions a prospective salesman may make. Learn all you can from all who approach you but fit all their plans into a pattern of work that will suit your organization as it exists at present. Above all else, be sound in your decisions. After all, you are still the executive head of your enterprise. If your new sales representative wishes to sell all retail dealers direct because he does not readily secure a jobber who will fill his orders taken from the retail trade, do not agree at once with his suggestion. Think of the possible headaches in the plan. Remember the possible credit losses, think of the loss of prestige among other jobbers when they learn you are "going direct" to the trade in even a single market until you are ready to go direct in all of them.

ABILITY AND APPEARANCE

When selecting a salesman to sell your line of canned foods or the sole item you are offering, look first to the background of the man you employ. Has he a reputation for reliability, is his bearing erect, does he look one in the eye and meet smile with smile? Is he neatly dressed, would you feel at ease if he were to accompany you on a selling trip to call on all your jobbing connections? After a reasonable time with you, do you feel you would take his recommendation as to a possible change in brokerage representation. Would you take his word against that of a broker whom you have known for some time?

Before employing him or them, learn if they will be willing to work on an incentive plan of compensation. I know you do not expect to make any money as a direct result of their efforts but will your prospective employee be willing to accept a certain salary and expense and participate reasonably in the profits of your operation. Will he accept as a bonus plan, a payment of a few cents per case on account of accredited sales he makes to retail grocers? His agreement to such plans may prove more quickly than would any other means, whether or not he is a *salesman*.

Do not be discouraged about hiring a salesman because of these suggestions, after all, a great deal of the canning business is a gamble anyway, you are only following along accepted lines when you gamble when hiring a sales representative. Remember that when selling gets harder, your best chance of securing increased sales and profits is by means of supporting your wholesale distribution by means of retail sales coverage.

GMI FEATURES FULL COURSE CANNED DINNERS

The Can Manufacturers Institute is running full color advertisements in leading national magazines to show the colorful variety of foods, enough for countless full course dinner combinations, that people can buy in steel-and-tin containers.

The featured buffet is only one of many possible complete dinner spreads that can be hustled together from cans. It includes, jellied tomato bouillon, crackers, deviled ham, vienna sausage, sliced liver loaf, tongue and chicken, hot corn pudding, vegetables, honey, biscuits, and iced tea. Civilian homemakers are reminded that they are reaping a harvest sown in wartime from experiments which led to greater variety in the diet of GI Joe, and which means greater variety in post war meals in the home.

This advertisement will appear in Life, The Saturday Evening Post, Better Homes and Gardens, McCalls, Ladies' Home Journal, and Good Housekeeping.

GRAMS OF INTEREST

MACHINERY & SUPPLIES EXHIBIT APPROVED

TEN NEW MEMBERS ADMITTED

At a meeting of the Board of Directors of the Canning Machinery and Supplies Association, held in New York August 6, it was unanimously voted to hold the annual exhibit in connection with the Canners Convention the week beginning January 19 at Atlantic City, New Jersey.

This is the fortieth meeting of the Machinery and Supplies Association with the National Canners Association. While the Canning Machinery and Supplies Association dates informally from 1885, when the first exhibit of machinery was held at the Grand Pacific Hotel in Chicago, the Canning Machinery and Supplies Association was incorporated in 1907.

This exhibit will be held in the Atlantic City Auditorium, and from the interest shown by the members it promises to be a very successful meeting.

Ten new firms admitted to the membership include: Buflovak Equipment Division, Blaw-Knox Company, Buffalo, New York; W. J. Fitzpatrick Company, Inc., Chicago, Illinois; Marsh Stencil Machine Company, Belleville, Illinois; Barry-Wehmiller Machinery Company, Saint Louis, Missouri; W. Atlee Burpee Company, Philadelphia, Pennsylvania; Productive Equipment Corporation, Chicago, Illinois; Walker-Wallace, Inc., Buffalo, New York; Rapids-Standard Company, Inc., Grand Rapids, Michigan; Island Equipment Corporation, New York, New York; The Fiske Brokers Refining Company, Newark, New Jersey.

BLAKE REJOINS BRUCE'S JUICES

After serving for 40 months in the Pacific aboard an LST, Pat J. Blake has rejoined Bruce's Juices, Inc. and will serve as Manager of the Tampa, Florida office. Blake first went with the company in 1934 and entered the armed services in 1942.

JOINS SON IN CANNING BUSINESS

W. A. Cain has joined his son, J. W. Cain, in the Cain Canning Company, Springdale, Arkansas, and will take over the duties of Sales Manager. Mr. Cain, Sr. had previously been connected with the American Can Company acting as special sales representative in the Ozark territory with offices at Fayetteville. It is felt that the addition of his experience and ability will be a valuable asset to the organization. The company is an extensive packer of spinach, green beans, tomatoes, peaches, blackberries, apples and grape juice.

PENNSYLVANIA CONVENTION DATES

November 21 and 22, 1946, are the dates chosen by the Convention Planning Committee of the Pennsylvania Canners Association, for holding its 32nd Annual Meeting. The Yorktowne Hotel in York will be the Convention headquarters. The Committee is working on a tentative program which will be presented to the Association's Board of Directors for official approval, when the Board meets in October. All points of this Convention preparation are receiving careful study and a valuable and informative program, designed to attract and invite the interest of all those associated either directly or indirectly with the Canning Industry, will be presented.

TESAR TO MANAGE EXCHANGE SALES

Jerry Tesar who has been associated with the Texas citrus industry for the past 16 years, has been appointed Sales Manager of the Texas Citrus Fruit Growers Exchange. He will also direct the sales of the "Roi Rey" and "Sure Sweet" brands of Texas grapefruit juice packed by the Shary Products Company.

DR. PHILLIPS EXPANDING

Dr. P. Phillips Company has an expansion program under way at the Orlando, Florida plant which will increase the capacity approximately 50 per cent and make the plant one of the largest in Florida. The company contemplates the packing of one or more blends of tangerine juice with other citrus juices this coming season.

HARRY IMWOLD DEAD

Harry Imwold, 68 year old President of the W. F. Assau Canning Company, Baltimore, and former director of the National Canners Association, died July 31. Mr. Imwold entered the canning business in 1905 with the late William F. Assau, who was his father-in-law. He was well known to the canning industry and has been active with the Baltimore Canned Foods Exchange for many years and had served both as Secretary and President.

G.F. EXPANDS HOUSTON OPERATIONS

General Foods Corporation has contracted to buy the Ford Motor Company buildings at Houston, Texas and will greatly expand their operations at that point.

WHITE APPOINTED O-I SALES PROMOTION HEAD

Kenneth C. White, General Sales Manager of Libbey Glass Division of Owens-Illinois Glass Company, has been appointed Sales Promotion Manager of the company's Glass Container Division.

Announcement of the appointment, effective August 1, was made by Smith L. Rairdon, Vice-President and General Sales Manager of the Glass Container Division. Mr. White succeeds Howard A. Trumbull, who resigned recently to form his own research concern.

KENNETH C. WHITE

Mr. White has been associated with the glass industry for nineteen years, starting his career as a general line salesman for the Southern Glass Company at Los Angeles in 1927. This company was purchased by the Illinois Pacific Coast Company in 1931. Owens-Illinois Glass Company purchased the latter concern in 1932.

Mr. White became sales manager of the coast company's Food and Dairy Division in 1935 and was made manager of the San Francisco branch in 1941.

Between 1935 and 1941, Mr. White directed an Owens-Illinois' development of processing fruits in glass on a continuous operating basis on the Pacific coast. This program was further expanded and today the California Packing Corporation and several other large coast packers use glass for a sizeable portion of their fruit and vegetable output.

In 1944 Mr. White moved to Toledo, becoming General Sales Manager of Libbey where he has been responsible for all of this division's sales and sales promotion activities.

OPENS NEW PLANT

CedarGreen Frozen Pack Corporation, Wenatchee, Washington, has opened a new plant at Quincy, Washington, about 15 miles East of Ephrata.

NEW FIRM

I. B. Pardee heads the new Skyland Processing Company which has begun construction of a canning and freezing plant at Hendersonville, North Carolina at an approximate cost of $500,000. The new plant is to be ready for operation early next spring. Fruits, berries and vegetables will be processed. Associated with Mr. Pardee are J. J. Pardee and H. Schwertzer.

SYRUPS CUT TO INCREASE SUGAR SUPPLY

As a method of increasing needed supplies of crystalline sugar by approximately 24,000,000 pounds annually, the U. S. Department of Agriculture has announced an amendment to War Food Order No. 7 which increases the extraction rate of refined sugar from raw sugar. This action will decrease at the same time the production of non-rationed refiners' sirups to approximately 14,000,000 gallons for the year July 1, 1946-June 30, 1947—as contrasted with a 1945 calendar year production of about 22,000,000 gallons. The amendment is retroactively effective to July 1, 1946.

McNEAL SUCCEEDS PHELPS IN OPA

Geoffrey Baker, OPA's Deputy Administrator for Price, has announced the appointment of C. Dean McNeal, of St. Louis, Mo., as Division Director of the Foods Price Division. Mr. McNeal, who has been acting as a consultant advisor for the Office of Economic Stabilization, replaces Edward F. Phelps, Jr. who has resigned to return to private industry.

Mr. McNeal formerly was associated with OPA, having served since 1942 as consultant and business specialist in the meat rationing program and as price executive of the Cereals, Foods and Agricultural Chemicals Branch of the Food Price Division. Before his OPA experience, he was associated with the Ralston Purina Company of St. Louis, Mo., for more than 11 years. He is now on loan to OPA from this company, where he is head of the Agricultural Forecasting Division.

OPA RETAINS ADVISORY COMMITTEES

All OPA industry advisory committees which were in existence on June 30, 1946 have been automatically re-instated under the terms of the Price Control Extension Act of 1946, the Office of Price Administration has announced. Canner committees retained by the action include the following: Canned Fruit and Vegetable, Meat Canning, Evaporated and Condensed Milk, Non-seasonal Canned Foods, Canned Vegetable Baby Food, Sardine and several other commodity committees.

BROKERS TO MEET JANUARY 12

J. O. Crawford, National Chairman of NFBA, has announced that the 42nd Annual Convention of the National Food Brokers Association will be held the week of January 12, 1947 at Atlantic City, New Jersey.

At a special meeting in Washington, D. C., NFBA's Executive Committee decided on this time and place as the most practical and advantageous to the members of the National Food Brokers Association and to their principals. Mr. Crawford stated that this action was decided upon because it was very evident that the room allocations available for a joint convention with the National Canners Association the week following would not permit full attendance of NFBA members and their principals. NFBA convention meetings will be held on January 13 and 14. The remainder of the week will be devoted to conferences with all principals.

NFBA Headquarters Office in Washington will make all reservations for all members and non-canner principals for the NFBA Convention. Preparations are not yet completed for the handling of these reservations. When they are, members and principals will be furnished official reservation blanks, Mr. Crawford said.

Carlos Campbell, Secretary of NCA, who has already announced that the Canners' Convention will be held at Atlantic City the week of January 19th, informed the NFBA Executive Committee that his organization would cooperate by making advance reservations for NCA members who desire to come to Atlantic City early enough to attend the brokers' conferences. In such cases, these advance reservations would be set up so that NCA members could maintain these same rooms throughout the Canners' Convention.

Holding an earlier convention the NFBA will thus be able to secure a larger selection of good rooms. Because the two conventions will be held in consecutive weeks in the same city, the advantages of joint convention will be secured minus its restrictions. It was felt that staggering the meetings at Atlantic City is a better policy than holding the conventions in separate cities.

CALKINS ADVANCES SWANSON

Joel A. Swanson, who has been in the employ of Calkins & Company, Chicago food brokers, for a number of years, has been elected Assistant Treasurer of the company and arrangements are in progress for the eventual acquisition by him of stock interest in the company. L. Demartini, long established processors of nuts in the shell and shelled nuts, have appointed Calkins to represent them in the Chicago area.

CLOVER FARM ELECTS MASON

At a meeting of the Board of Directors of Clover Farm Stores Corporation held July 30, 1946, Grant A. Mason was elected to the position of Executive Vice-President, Treasurer and General Manager of the company. He succeeds the late T. Blair Willison.

Mr. Mason became affiliated with Clover Farm Stores Corporation in 1938 as merchandise manager, and in 1942 was elected to the office of Vice-President in Charge of Field Operations. Before his affiliation with Clover Farm Stores Corporation he was sales manager for a large food chain, which position he held for a number of years.

CHAIN EXPANDING

With the opening of its sixth new store within five weeks, Liberal Markets, Inc., Dayton, Ohio, supermarket chain, is now engaged in a million dollar expansion program, company officials state. Plans call for an additional 14 units by the end of the year.

REAL ACCORD

Jack Walton of the John M. Walton Co., food brokers, Hartford, Conn., says that he has represented Curtice Brothers Co. of Rochester, N. Y., canners of Blue Label Foods, in New England for 27 consecutive years.

NEW WHOLESALE GROCERY

Capitalized at $100,000, Morris & Co. has been chartered at Pickens, S. C., to operate a wholesale grocery business.

E. E. Morris is president of the company, with Julian D. Wyatt as secretary.

NFBA ADMITS MEMBERS

National Food Brokers' Association announces that Gus J. Maynard, Miami, and the Tri-State Brokerage Co., Shreveport, have been admitted to membership.

IN NEW QUARTERS

Winner-Misner Co., Portland, Ore. food brokers, have moved to new offices at 1301 Terminal Building in that city.

VISITING IN EAST

C. H. Rosenbaum of Kahn & Sons, Evansville, Ind., wholesale grocers, is looking over conditions in the New York market, taking a "busman's holiday" on his vacation.

ADDS FROZEN LINE

G. M. Davis, Philadelphia food broker, has added a frozen foods department to his operation.

The new department is under the management of John C. Stull, formerly with Standard Brands, Inc.

USDA Cuts Back UNRRA Purchases

Following negotiations with the United Nations Relief and Rehabilitation Administration, the U. S. Department of Agriculture has announced that substantial cutbacks are being made in food purchases for that agency.

These reductions, in a number of commodity groups, were initiated at the request of UNRRA, as a result of that agency's need to use its remaining resources budgeted for the procurement of food to buy cereals and other products which are cheaper in relation to caloric value.

In general, UNRRA's requests for cutbacks affect the relatively higher cost items, principally meat and dairy products. However, UNRRA is still attempting to obtain as much bread grain and fats as possible, and general procurements on these items will not be cut, except in certain specific instances.

The major items affected by these procurement adjustments are as follows:

In the case of canned meat, about 28 million pounds originally requisitioned by UNRRA will not be furnished. This will leave a total of about 60 million pounds of canned meat to be delivered to UNRRA during July, August, and September, which will complete UNRRA's program on canned meat. This meat has all been contracted for and no further procurement of canned meat for UNRRA is contemplated. The Department also will deliver 34 million pounds of fat cuts during the same period.

It is not anticipated by the Department that it will be possible to cut back on horse meat procurement appreciably, because of the nature of arrangements which have been made for its production. More than 21 million pounds of the 40 million pounds of horse meat requisitioned by UNRRA has been purchased.

From a requisition calling for approximately 300 million pounds of dairy products, it is estimated that the Department definitely will be able to cut back procurement about 125 million pounds. It also may be possible further to reduce purchases by an additional 60 million pounds, depending on a final determination of quantities already shipped and the amount of stocks which have been packed especially for UNRRA. Dairy products concerned include dried milk, cheese, and canned milk. Purchases for the British and French programs will continue, but there will be no more purchases of dairy products for UNRRA's account.

The Department will make no more deliveries of dry edible peas to UNRRA, which will result in a considerable reduction in the Department's procurement program for this commodity.

The Department will make every effort to deliver to UNRRA adequate quantities of grain and grain products, but it will not attempt to procure certain rather specialized items.

With the exception of one outstanding requirement for 10,000,000 pounds of ground fish, no more canned fish will be provided for UNRRA, and even the ground fish requisition will be cut back, if possible.

PRICE EXEMPTIONS CLARIFIED

OPA has clarified its position as to how canned foods are affected by exemption provisions of the 1946 Price Control Extension Act. Products that are removed from ceilings generally are those foods containing 20 per cent or more by volume of commodities that have been specifically exempted from price control under the new act. If they contain less than 20 per cent of the exempted item they remain under ceilings, OPA said.

Canned foods remaining under price control include the following: All processed fruits and vegetables that were under price control on June 30, 1946. Processed meat products containing less than 20 per cent meat: Soup, Pork and Beans, and Spaghetti and Meat Balls. Canned foods packed in oils such as sardines, tuna and certain imported delicacies (these remain under price control regardless of the percentage of soy bean or cotton seed oil involved).

Canned foods exempted from price control by the Act are specified edible products such as canned meats and canned chicken containing 20 per cent or more of these products, and canned milk.

Ceilings on all exempted canned foods except canned poultry and by-products will be restored on August 21, 1946, unless the de-control board decides otherwise. Action of the de-control board to restore ceilings will be required before canned poultry and by-products may go back under price control.

THE FAR EAST TIN SITUATION

World tin production will not attain pre-war levels until some time in 1949, John J. Croston, special investigator for the Civilian Production Administration, reports following a recent on-the-spot survey of Far Eastern conditions. Only about 41,000 tons of tin were located in the Orient, which is normally the source of 70 per cent of the world's tin supply, he said. This 41,000 ton supply is approximately three months' world consumption at the present rate.

Mr. Croston, who is Deputy Director of OPA's Metals and Minerals Division, recently returned to this country after visiting India, Burma, Malaya, the Netherlands East Indies, Japan, China, French Indo-China and Siam. He was lent by OPA to the Reconstruction Finance Corporation to make this tin survey and to help speed rehabilitation of the tin mines there.

The poor condition of the Far Eastern tin mines will limit 1946 production to approximately 24,000 tons in 1946, compared with a peacetime production in the Orient of over 160,000 tons, Mr. Croston said. The 1947 rate will be only about one-half of the peacetime rate, and even in 1948 and 1949 may not reach a pre-war basis. Political unrest, inadequate food supplies and lack of proper working conditions are contributing factors in the expected production lag.

The United States cannot obtain all of this production, since it must be divided among all the consuming nations hungry for tin after starvation rations for more than four years.

Mr. Croston's report on tin supplies, broken down by areas, was as follows:

NETHERLANDS EAST INDIES—Two hundred tons of tin metal (pigs and boxes) were uncovered on the island of Java. Billiton stocks were approximately 300 tons tin content concentrates; Banka stocks approximately 6,000 tons—half pig tin, half concentrates. Total anticipated output of Banka, Billiton and Singkep in 1946 is about 7,200 tons, rising to 32,100 tons in 1947 and 47,500 tons in 1948 and thereafter.

MALAYA—Stocks were approximately 4,500 tons metal and 6,000 tons concentrates. Anticipated output for 1946 is approximately 12,300 tons. In 1947 the production should reach 46,150 tons and 72,800 tons in 1948. Malaya will probably not reach over 90 per cent of prewar peak, which was 85,000 tons in 1940.

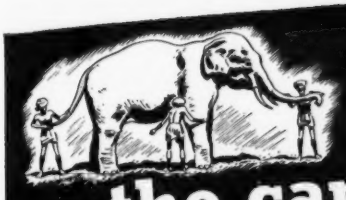
SIAM — Stocks were approximately 15,000 tons total in pig tin and concentrates. Present "guesstimates" for 1946 put output at 1,400 tons, for 1947 between 6,000 and 7,000 tons, rising to 13,000 tons, in 1948 and to 17,000 tons by 1949. This is approximately the prewar peak.

BURMA—Peacetime tin production was about 6,000 tons annually but output in 1946 is expected to be negligible.

CHINA — Pre-war output was 12,000 tons annually, but 1946 production will be about 2,500 tons.

FRENCH INDO-CHINA—This country is expected to reach in 1946 approximately one-half its normal peacetime production of 2,000 tons annually.

JAPAN—Surplus pig tin stocks were about 10,000 tons and are now being shipped to the United States for allocation by the Combined Tin Board. Stocks in Japan, plus small production there, may be sufficient to keep Japanese industries operating on a non-military basis for several years, Mr. Croston reported.



Like the elephant . . . the can consists of many parts

Photomicrograph of solder—magnification 400 diameters. Study of solder under the microscope determines freedom from the inclusion of foreign matter.

Consider solder. We do. The solder used in fabricating Crown cans is under constant scientific inspection. As a result it is the best solder to be had. It is strong so that Crown cans may be strong . . . it is uniform and smooth flowing so that the seams of Crown cans may be sound hermetic seals. All of which is a part of Crown personalized service — to assure you just the right cans for your particular needs . . . a good reason for dealing with Crown.

CROWN CAN

THE NATION'S THIRD LARGE SOURCE OF SUPPLY

CROWN CAN COMPANY • PHILADELPHIA • Baltimore • Chicago • St. Louis • Houston • Orlando • Fort Wayne • Nebraska City

THE CONDITION OF CROPS

BEANS

RIDGELY, MD., Aug. 5—Lima Beans: Crop good.

ROCKY COMFORT, MO., July 29—Beans: All through packing the spring and summer crop. Fall planting now under way; early crop about 80 per cent.

YORK, PA., Aug. 5—Snap Beans: Pennsylvania Canners Association reports the following comments from growers in the state:

"Crop will be above normal for later beans. Some were suffering from lack of moisture but recent rains will correct condition."

"Thirty-five per cent of the normal crop."

"Torrential rains caused heavy losses."

"Early planting spare largely over, remainder of acreage will run until August 20th. These fields look good. Rain now will make them a good crop. Without this rain, beans would not have been anything like normal. Look for good quality and good yields now."

"Fifty per cent yield. Bean beetles very bad in some fields. Dry weather has affected some of the early beans."

"So far the yields on beans have been very disappointing and the crop was two to three weeks late. We hope we will get 75% of the yield."

OCONTO FALLS, WIS., Aug. 6—Snap Beans: Pack will be short because of limited acreage. Farmers still "nigger rich" and feel that beans require too much hand labor. Pack just starting. Quality good and yield better than normal but need rain badly or pack will be ended in a hurry.

CORN

RIDGELY, MD., Aug. 5—Corn: 80 per cent of normal.

ROCKY COMFORT, MO., July 29—Corn: Condition is 70 per cent. All of July dry.

LEBANON, OHIO, Aug. 5—Sweet Corn: Acreage was a little lighter than usual. Some who had signed did not get their seed planted due to excessive rain. At present corn looks good but we need a drenching rain within the next few days. Should we get this needed rain prospects are for a good yield.

YORK, PA., Aug. 5—Corn: Pennsylvania Canners Association reports the following comments of growers:

"At present about normal, some fields were firing but recent rains will correct this condition. Fields are very weedy which will make harvesting difficult."

"Corn crop making fair progress. Considerable early damage from excessive rains. Many fields spotted and uneven in maturity but prospects 90%."

"We use only early plantings of corn which was affected by wet weather. Crop will not be over 60% of that which was planted."

"Fields very spotty and many weeds. Some fields disced up or plowed down and not replanted—about 10% of our acreage. Corn will be bunched due to rain when planting. Prospects 60% of normal."

"Plantings made during early May came up spotty with considerable variation in size in stocks now existing. Uneveness of size of stock indicating spotty ripening of corn. Expected yield not over 65 to 70 per cent of last year. Rains during the past week may alter the picture somewhat."

"60% prospects. Fields grassy generally. Poor stands."

"Corn at the present time is approximately 65% stand. This corn was planted two weeks later than normal due to wet weather but at this time appears to be in better condition than earlier plantings."

"A lot of our corn acreage was lost due to the heavy rains and flood of May 27th. We do not expect our corn crop to be more than 50%."

OCONTO FALLS, WIS., Aug. 6—Sweet Corn: Never looked better but must have rain to save the crop. Have the usual acreage planted to both white and golden and if weather conditions permit, should have the biggest pack in years.

ROCKFIELD, WIS., Aug. 1—Corn: Suffering considerably from drought at the present time. If we do not get some rain within the next ten days our corn will be very short and the quality will not be much good.

TOMATOES

HUNTSVILLE, ARK., Aug. 5—Tomatoes: Now packing. Rain badly needed in all of growing sections. If we do not get this relief soon crop will be cut at least 50 per cent. Some tomatoes now blistering.

OAK GROVE, ARK., July 30—Tomatoes: Crop best for twenty years. Began canning July 25, which is three weeks ahead of most years. Large acreage. All look good. Had a five inch rain on July 28. We will probably pack 20 cars. Plenty of help at present.

ELWOOD, IND., Aug. 1—Tomatoes: In 1944 we had a very dry season and a good crop; in 1945 a very wet and cool season with much blight, and only about 50 per cent of normal yield. So far this year the crop looks very good. We are having ideal weather and if it continues will have a very good season.

FAIRLAND, IND., Aug. 5—Tomatoes: Acreage 50 per cent of normal; prospective yield 70 per cent.

FRANKTON, IND., Aug. 5—Tomatoes: Warm and dry weather is helping. Some blight reported. Prospect is good for good crop. Some starting to pick this week but will not swing into production much before the last of the month.

RIDGELY, MD., Aug. 5—Tomatoes: Early crop good; late crop fair.

ROCKY COMFORT, MO., July 29—Tomatoes: Crop 95 per cent. Had too much dry weather and July 28 gave us the worst hail storm in many years. Some fields total loss.

MONTPELIER, OHIO, Aug. 3—Tomatoes: Crop in this section looks favorable. It looks as though we will be able to start a week earlier than previous years.

YORK, PA., Aug. 5—Tomatoes: Reporting to Pennsylvania Canners Association growers say:

"Tomato plants set out in the fields later than normal years due to rainy weather. Have a fair stand on fields but spotty—that is, one farmer has a good stand of plants that are looking very good while his neighbor has a good stand of plants but not looking so good. However, if we have the right kind of weather from now on we can expect a normal pack from our acreage."

"Very uncertain. Prospects were for a bumper crop until blight appeared. Some fields are past saving unless we can control this disease—fields will be less than 50% normal."

"Unless present conditions change our tomato crop will not be more than 50% of normal. Plants damaged by hail in some of the fields and blight infecting plants at the present time."

"Very good condition. Soon ready."

"Sixty per cent of our tomatoes are 90% normal. Forty per cent due to wet weather at planting time are poor due to poor cultivation, etc."

"Fields look good from a distance but in individual inspection discloses infection of blight in all fields. This period of rainy weather will cause the blight to spread. Expect much damage and loss. The situation is the most serious and critical in years. Doubt if we will get half a crop. Doing all we can to check blight by spraying and dusting."

"We have our usual acreage of tomatoes planted and at this writing are looking pretty good."

"Late tomatoes look good. Little sign of blight here."

"Look very good at this time. Indications are for normal year."

DUNNSVILLE, VA., Aug. 6—Tomatoes: About 10 to 15 per cent damage due to potato late blight. Fruit so far in very good condition but excessive rains the last week did a lot more damage than blight.

NATURAL BRIDGE, VA., July 31—Tomatoes: Acreage 75 per cent. Expect 100 per cent yield per acre.

22 YEARS AGO—

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THE CANNED FOODS MARKETS

WEEKLY REVIEW

Demand Will Continue to Keep Ahead of Supply—Labor Is Responding or Will Do So—The Injustices of Strikes—The Food Supply Threatened By Cannery Strikes—As To Prices

CROPS PROGRESSING—All things and all sections considered crops are making satisfactory progress. Old Dame Nature is helping the canners, and other food savers, to get up as large packs as possible. The demand is there, hungry for more than can be supplied this season, and so those in this business of saving the crops' surpluses, and special growings, are being helped by Nature, and mankind is not falling down on his end of the job. And he is not likely to as long as demand continues so strong, and prices are at least satisfactory. Canners who are reporting cuts in the amount of acreages, as many are according to our Crop Reports, will live to regret the action, and be sorry they did not increase, rather than decrease. And we are not unmindful of the labor situation which scared off many, and we think without good reason: they were scared they would not get enough labor to harvest the crops, and later put them through the canneries. As we have said before, that labor cannot be expected to walk up and beg jobs, at the canner's wage offer; but where the minimum price on wages is offered the needed hands seem to materialize, and much more readily where the minimum is avoided and better pay is offered. That does not mean the old too-low wages, but good, fair wages, with good working conditions will bring out the required help—if you as canners make the effort needed to get it.

There is a great cry against Government in business, but when a well organized minority, under the guise of a labor union, can threaten to shut down a great food producing concern like Campbell Soup Company, forcing out thousands of willing workers, and forcing heavy losses upon crop growers who have responded to the appeal for more food to feed a hungry world, there ought to be some agency to step in and put an end to such a hold-up, for that is what this union demand amounts to. The strike against Campbell, who has of necessity paid fair wages — generally satisfactory to the workers, but not to the union bosses who never do any work of a manual sort—the whole consuming public is directly threatened and a big firm placed in jeopardy. The evil of the scheme is disclosed by the fact that they wait until the crops are ready, the food producing plant all equipped with manpower and the necessary supplies, to call their strikes. The threat to the world's food supplies ought to be fought as any other war which threatens the lives of our people. And it is not too much to say that, because Campbell could better stand the loss of closing down its plants, than can the growers who have planted the crops with all the labor and expense of doing so, and the public be forced to do without this well known, and extensively used dish, which says nothing of the loss of wages of the thousands who work for this big firm both in the East and the West. If the Government is not the medium to straighten out such a tangle as this, no one else can be. The plant ought to be compelled to keep in operation, while the question is discussed under the provision of retroactive application of any decision made; but the crops and the labor ought not to be jeopardized by this small clique in the union. The crops cannot wait upon any labor - management discussion; but its terms could be applied, if—and only IF—the plant continues operation. Because the people have a very direct interest in this.

This question might seem to be totally unrelated to this column, but think it over for a moment, because other canners will soon be feeling these effects, as indeed many are doing now. Earlier meetings were held and an agreement reached upon cannery wages for this season, and their determination, reached by a combination of labor and management, ought to be enforced now, as any other agreed upon matter. The trouble is not with the labor, but with the labor bosses who never do any work, except to prove to their members that they are on the job by frequently calling strikes.

THE CROPS—A quite good resume of crop conditions, as reported by the canners themselves, and from a widespread territory, are given under Crop Reports elsewhere in this issue. Aside from some cutting of the amount of acreage, conditions seem favorable at this writing. In this immediate region we have had heavy and extensive rains which undoubtedly did a lot of good, but which our daily papers are inclined to think harmed growing crops. So be careful of the source of your information. The rains have been beneficial by a large majority, with the exception where they were virtual tornadoes, accompanied by deluges of rain, and these instances were but few, and very limited in extent.

The tomato pack has begun, and loads of tomatoes are running to the canneries, and to market, and they are of good quality, but will be better as the season progresses. The festive tomato is a dangerous animal to attempt to prognosticate upon his actions, but he will come through this season and with bumper yields as a rule. Watch and see. Do not forget that the market always hears about the damages to crops, but little that is reliable about the yields, for as a rule they either kill them off, or overdo the amount of yields. The canners know their crops, and they are getting busy getting them into cans.

PRICES—The Government does not intend to force losses upon the producers of canned foods. Let's quote a Tri-State announcement of August 7th:

"PRICE CEILING AMENDMENTS — We have just been advised by Office of Price Administration that they have passed the long awaited Amendment providing for the reflection of the amount of the subsidy in your ceiling price.

"This is known variously as Amendment 13 to Supplement 13 and became effective retroactively regarding that Supplement on July 28, 1946 (this covers 1945 packed products).

"It is also known as Amendment 1 to Supplement 19 and became effective retroactive to July 25, 1946 (this covers 1946 packed products).

"In addition, it is known as Amendment 1 to Supplement 17 and became effective retroactive to July 28, 1946 on 1945 frozen products and on July 25, 1946 on 1946 frozen products.

"Amendment 44 to S. O. 132 removes 1945 packed snap beans from ceiling prices. (This includes snap beans packed prior to March 1, 1946).

"The same series of Amendments permits packers of tomato products such as puree, soups, catsup, etc., to reflect the designated raw stock price in their ceilings rather than the resale price as was previously the case.

"Packers of puree who were not in business in 1941 and who do not have a base period price are given specific dollars and cents prices for their product. For example, new tomato puree packers will have a price (according to advice given us by phone) of $6.06 per dozen for 1.045 sp. gr. to which they are permitted to add their wage adjustment factor. For such a packer to determine a wage adjustment he would (1) determine the cents per hour increased wages paid his female labor between the 1943 and 1946 seasons. (2) This number of cents per hour difference will be multiplied by .003. (3) The factor thus arrived at will then be multiplied by the ceiling price (in this case, of course, $6.06). (4) The resulting figure is the number of cents per dozen which is to represent the wage adjustment. (5) This adjustment will then be added to the ceiling price. For the sake of clarity, let us assume that the ceiling price in this area prior to wage adjustment is $6.06. Let us further assume that the increased wages are 15 cents per hour. Multiply the 15 cents per hour by .003 which gives you .045. You will then multiply the $6.06 basic ceiling price by

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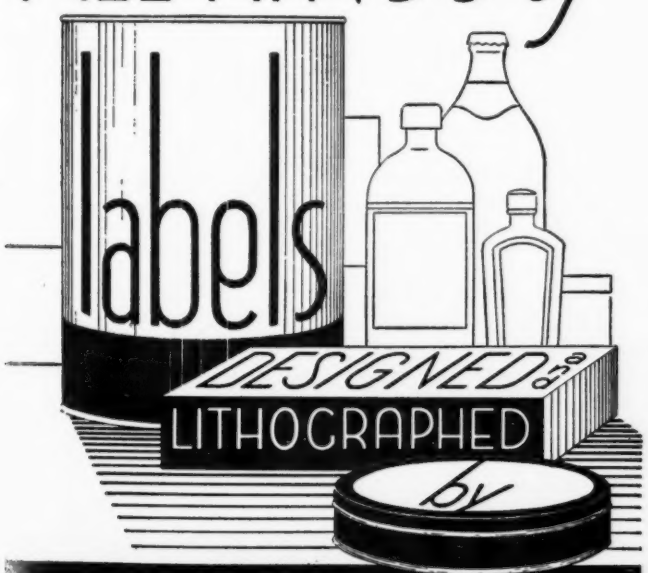

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.045 which gives you $0.2727. You will then add $0.2727 to $6.06 which gives you a final gross maximum price of $6.3327.

All of the above information is based upon a telephone conversation and is being given you as promptly as possible, subject to the understanding that we will correct any inaccuracies as promptly as the printed order can be secured. The Amendments appear in the Federal Register of August 9."

The former subsidy per dozen No. 2 cans of canned vegetables and tomato products were: peas 20c, tomatoes 18c, corn 6c, tomato juice 6c; frozen vegetables 12 oz. packages: corn 1c, peas 1c.

In determining ceiling prices the deduction of these amounts for subsidy will simply be disregarded.

NEW YORK MARKET

Ceiling Adjustments Obscure—Buyers Want To See Samples—Growing More Careful—"Get-By" Prices—Peas Moving Well—Corn Well Sold on Futures—Cherry Situation Interesting—Apricots Well Booked—Buyers Trying To Get More Canned Peaches—Fear Small Salmon Pack—Maine Sardine Packers Busy—

By "New York Stater"

New York, August 9, 1946.

THE SITUATION—While OPA's plans with respect to canned vegetable repricing are now clear, the outlook for ceiling adjustments in canned fruits and fish is more obscure. Hence, there has been only a limited volume of trading in this market during the week, with the trade generally inclined to mark time until the situation further clarifies. A noteworthy development coming in for comment in several quarters of the market this week is renewed interest by buyers in seeing samples before they make commitments on some items where the supply pinch seemingly is easing. This is in marked contrast to conditions of recent years, during which the distributing trades freely bought "sight unseen," and undoubtedly reflects disquiet over reports that some segments of the trade, in their anxiety to obtain short merchandise, have closed their eyes to deliveries falling below grades specified in sales' agreements.

THE OUTLOOK—While no one here is looking for an overnight return to a buyers' market, practical traders believe that the "levelling off" period is about ready to make its appearance. Hence, management is going into the problem of inventory policy in great detail, in an effort to trim sails to meet the expected storm when the price recession ultimately sets in. An immediate reflection of this tendency will be a growth in selective buying by wholesalers and chains, it is felt, although fancies in virtually all lines will continue to move readily.

TOMATOES—Mixed reports on the pack situation are being received here, but apparently canners are going ahead and packing whole tomatoes to the limit of their ability under the limited labor supply in many areas. The ceiling price situation, however, remains to be readjusted, and no mere blanket permission to canners to add the discontinued subsidy payment to their 1945 ceiling will afford the solution. If the 1945 ceiling, even with subsidy, was insufficient to cover canner labor costs on packing whole tomatoes, the same situation obviously prevails this year. Hence, it behooves OPA to speed up ceiling action on this product. Canners in the South reportedly have voiced the opinion that they will require a range of $1.25-$1.35 on standard 2s to "get by." Meanwhile, canners are not offering whole tomatoes until the price picture clears up further.

PEAS—There has been a good movement of peas reported, with distributors taking in fancies in a large way for private label requirements wherever available. The pack of fancies in many areas has failed to come up to expectations, although standards and extra standards are offering in good volume, with only limited demand reported at this time. Hence, canner deliveries on 1946 contracts are running largely to standards and extra standards.

CORN—Reports on the crop progress and pack outlook continue very favorable. Canners have booked a good volume of business on futures contracts and are not inclined to make further commitments on fancies until the pack is at hand.

CHERRIES—The trade is very much up in the air on the red sour pitted cherry deal this season. Current indications are that either under ceiling or a free market, prices will reach new peaks for this year's pack, probably levels that will result in definite resistance in some industries where this fruit is customarily used commercially in a large way.

CITRUS JUICE—Coast reports indicate a substantial increase in demand for new pack Valencia orange juice. While most canners are sold up on their expected pack totals, a limited amount of additional business has reportedly been done at $2.15 on unsweetened 2s and $5.25 on the 46-ounce. Canners are also booking s.a.p. orders on blended juice for fall shipment.

W. COAST FRUITS — Canners have booked a good volume of apricot business against this season's heavy pack, but are generally withdrawn now pending price clarification . . . With canners running on peaches, buyers are seeking to place additional commitments. Some concern is evident over reports that packing of fruit in heavy syrup has been restricted due to canners' difficulty in securing adequate sugar supplies . . . Reports from the Northwest indicate a short cherry pack, with canners sold up on Royal Annes and only limited quantities of dark cherries offering . . . Buyers have placed heavy commitments for new pack prune-plums, particularly syrup grades, and water pack is now coming in for more attention . . . Buyers are seeking confirmation on newpack fruit cocktail and pears, but canners are holding off in most instances.

SALMON—With the pack up to July 27 in Alaska reported at only 1,451,958 cases, against 2,270,094 cases up to the corresponding date last year, many operators fear that final production figures will be below 1945, which was the smallest pack in 18 years. Restricted cannery operations, stemming from an unexpectedly light run of fish, have boosted canner packing costs, and strong efforts are being made for a ceiling price lift. Until the outcome of this movement, it is not expected that any offerings will be made to trade buyers.

SARDINES—Maine canners are operating heavily following the appearance of large schools of fish off the coast, but no offerings are being made to the trade pending OPA decision on canner petitions for a substantial hike in ceiling levels.

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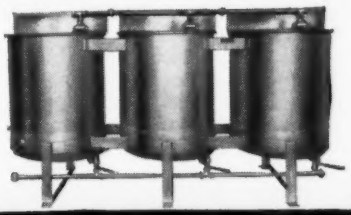

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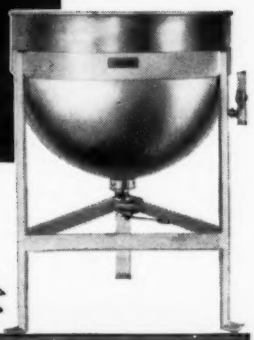

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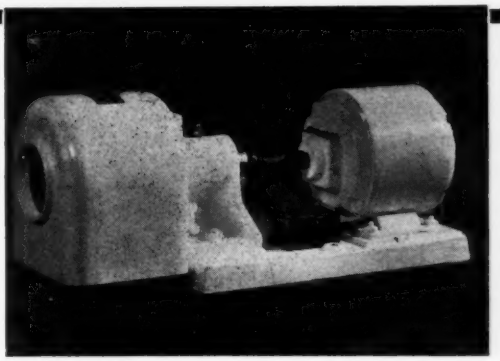

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TUNA—With canners still on a strict allocation basis, distributors are scouring the market carefully in an effort to bring out increased offerings, on the basis of reported sharply increased canning operations in California.

SHRIMP—Buyers are showing some interest in offerings of fall pack shrimp, and canner quotations remain unchanged, ranging from $4.00 for broken up to $6.00 for jumbos, f.o.b. canneries.

GULF STATES MARKET

Prohibitive License Fee Driving Fishermen Out of Alabama Into Louisiana—Alabama Shrimp Season Opens—Squally Weather Cuts Production—Packing More Crabmeat

By "Bayou"

Mobile, Ala., August 9, 1946.

ALABAMA FISHERMEN MOVING TO LOUISIANA—The recently enacted law in Louisiana, requiring out-of-State fishermen to take out a $2,500 license to fish in Louisiana waters is causing some of the Bayou La Batre, Ala., fishermen to move their residence and fishing gear to Louisiana, as that license is prohibitive.

For years a good many of the Alabama fishermen have been going to the Louisiana waters to fish, after obtaining a permit from the Louisiana Seafood Commission at a nominal sum, but the new law does away with the permit system and the $2,500 license takes its place.

Mississippi has made a reciprocal agreement with Louisiana on its fisheries, but Alabama has not been able to effect one, which is the reason Alabama fishermen are having to move to Louisiana.

For a long time Louisiana has been trying to stop non-resident fishermen from removing seafood from its waters, and to force the shrimp and oyster canneries to move their plants in Louisiana. So about 25 years ago Louisiana passed a conservation law, prohibiting the taking out of the State raw shrimp and oysters that were caught in Louisiana waters by out-of-State fishermen and boats. The Biloxi, Miss., canners fought it bitterly in the courts and finally the Supreme Court ruled that no State could stop interstate commerce traffic of its product, unless all of that product was consumed wholly within the State and no portion of it shipped out raw, cooked or canned. Hence, another law was enacted and the Louisiana Seafood Commission established an office in Biloxi, Miss., where, ever since, Louisiana has been collecting taxes on shrimp and oysters taken out of the Louisiana waters. This brings in a big revenue to the State of Louisiana each year.

Alabama fishermen have taken mostly fish from Chandeleur Island, which is a big island off the coast of Mississippi, near Louisiana, on which Louisiana maintains a lighthouse and therefore claims these waters.

SHRIMP—The Fall shrimp season opens in Alabama on August 12, and from then on to the close of the season, the shrimp boats will be allowed to trawl in the bays, channels and lakes of Alabama, which are the territorial waters of the State and which the Conservation department prohibits the shrimp boats to use during the closed season.

The Alabama Seafood Commission inspected the waters of the State last week to determine the size of the shrimp now available and they made the announcement of the opening of the shrimp season last Saturday.

The legal size of shrimp is 40 count to the pound with heads on and if smaller they can not be marketed. Of course, the shrimp can run less to the pound, which would be a larger size shrimp, but it can not be smaller than 40 count to the pound.

PRODUCTION—There were 177 less barrels of shrimp produced in this section last week than the previous week, and the amount produced last week in the different areas was—Louisiana 408 barrels; Alabama 75 barrels; Galveston, Texas 357 barrels and Port Lavaca, Texas 353 barrels.

Squally weather last week greatly interfered with the fishermen.

The total amount of shrimp produced in this section last month was 9,510 barrels, which all went to the raw market, as no record of any having been canned. In June 1946 there were 17,728 barrels of shrimp produced in this section, of which amount the canneries received 5,228 barrels, which made a total amount of 10,594 barrels of shrimp received by the canneries of this section the first 7 months of 1946, whereas 8,222 barrels were received during the first 7 months of 1945.

In the first seven months of 1946 there were 108,116 barrels of shrimp produced in this section and 89,766 barrels were produced the first seven months of 1945, which indicates that more shrimp were produced and canned during the first seven months of 1946 than the first seven months of 1945.

Shrimp production from the South Atlantic States during the week was as follows: Florida—St. Augustine 40,100 lbs., Mayport 22,000 lbs. and Fernandina 30,400 lbs. Georgia—St. Marys 7,800 lbs., Brunswick 35,200 lbs., Thunderbolt 49,800 lbs. and Darien & Valona 3,500 lbs. South Carolina—Beaufort 29,700 lbs. and Georgetown 3,800 lbs.

HARD CRABS — Crab production took about a thirty per cent drop last week over the previous week, as 481,000 pounds were produced the previous week and 329,560 pounds last week, or a difference of 151,540 pounds.

More crabs were produced in June of this year than in July of this year, and the total amount of crabs produced during the first seven months of this year was 9,561,790 pounds, whereas 8,447,642 pounds were produced in the first seven months of 1945.

It is interesting to note that the production of processed crab meat took a big jump this season over the previous seasons, as 165,130 pounds were produced in July of this year and 153,470 pounds in June of this year. In the first seven months of this year 561,355 pounds of processed crab meat was packed, which is the most that has ever been packed in any one season heretofore.

Processed crab meat is the kind that is kept without ice, whereas the fresh-cooked crab meat has to be kept on ice or under refrigeration.

WATER SUPPLY, SEWAGE, AND INDUSTRIAL WASTES

(Continued from page 8)

cellent chlorinators are available. The amount of chlorine to be added depends on the chlorine demand of the water and the level desired. Chlorine levels are usually expressed in terms of the residual present in the water after so many minutes, and most workers consider the following as satisfactory for normal water: 0.2 p.p.m. after 5 minutes' contact; 0.1 p.p.m. after 30 minutes' contact, or 0.05 p.p.m. at distant points in the distribution system. However, if an outbreak of disease threatens, the chlorine content is usually increased above these figures. Superchlorination is used by some cities for disinfection of their water supply. With this method the chlorine concentration is run up to 1-10 p.p.m., held for short time, and then reduced by addition of sulphur dioxide, activated carbon, sodium thiosulfate, or sodium sulfite. Experience with this method has demonstrated that it is quite successful, because it kills the organisms and also removes a number of undesirable odors and flavors. Superchlorination has been used in the corn and pea canneries without the dechlorination and with no ill effects. The canneries were operated for the season with 5-10 p.p.m. of chlorine residual in all the water being used. It was not objectionable for drinking and was not injurious to the canning equipment. Slime was cleared from all equipment that was constantly sprayed or washed with this water. Clean-up of equipment thus was made much easier.

Break-point chlorination. This is fundamentally a type of superchlorination. To explain break-point chlorination, it is necessary to explain what happens when chlorine is added to water. When chlorination is started, the chlorine residual does not increase in proportion to the amount of chlorine added, but rather goes up quite slowly until it reaches a maximum and then begins to drop as more chlorine is added. The drop continues until a minimum point is reached, after which the chlorine residual increases proportionately with the amount

of chlorine added. The minimum point is known as the break point. Most chlorine-oxidizeable odors and flavors disappear at the break point.

Water-Storage Tanks

Water-storage tanks are commonly used by most food-manufacturing plants, and frequently little attention is given to their construction and care. Tanks should be made preferably of steel and should be constructed so that they prevent entrance of rodents, insects, birds, and dust.

Sewage and Industrial Wastes

A. *Types of wastes*:

There are primarily two types of sewage: domestic and industrial. Domestic sewage is principally human excreta, laundry water, etc., coming from residences, institutions, and office buildings. Industrial sewage from manufacturing concerns is waste material that is water-carried and discharged into a sewage system. This type of sewage comes from creameries, canneries, packing houses, and other places where food is packed, as well as from commercial laundries, foundries, dye works, etc. We are concerned primarily with the part that canneries and related plants play in sewage disposal.

Industrial wastes are deleterious so far as they contain harmful substances such as chemical poisons, lye, etc. They are also harmful in proportion as their content of organic material breaks down under the action of aerobic micro-organisms. This action requires oxygen which is extracted from the water, and the quantity of oxygen necessary to balance the oxygen demand is termed the biochemical oxygen demand (B.O.D.).

In oxygen depletion a point will be reached at which fish cannot survive. If all the oxygen is consumed in the water, the action of anaerobic or putrefactive micro-organisms takes place, and the water is termed septic. The water is grayish or black, gas and odors are produced, and it is generally obnoxious and objectionable.

Treatment of sewage and waste is mostly concerned with preventing the oxygen depletion and the objectionable putrefactive process, either by supplying oxygen, by dilution, by removing organic material, or, by combinations of these methods, to accomplish stabilization of the material.

Municipal disposal systems handle a considerable volume of the industrial wastes of this country. It is quite probable that the load will increase as further restrictions are placed on the dilution method. When it is desired to divert industrial wastes to the municipal disposal system, a preliminary study should be made in cooperation with the managers of the sewage-treatment plant to determine the effect of the additional load on the plant and whether the food processor will need to install pretreatment or to pay for alterations and enlargements of the municipal plant. Because industrial wastes commonly have population equivalents many times that of residential sewage, the absolute volume of an industrial waste is not a true measure of the treatment load. Furthermore, treating industrial wastes in municipal sewage works is not simply a matter of enlarging the facilities to handle greater volume.

Most industrial wastes interfere with the proper functioning of one or more parts of the treatment works, often so seriously as to cause a complete shutdown of long duration.

Further details can be obtained from the National Canners *Bulletin* 28-L on chemical treatment to reduce B.O.D.

B. *Methods of disposal*:

1. *Disposal by dilution.* Perhaps the most common means of disposal in use at present is dilution: the wastes are discharged directly into large bodies of water such as rivers, lakes, and oceans. This sewage is raw, for the most part, with no previous processing except perhaps trituration to reduce the size of large solids. This practice throws a heavy biochemical oxygen demand on the body of water into which it is discharged, especially the fresh-water streams. The demand might be so great as to deplete the dissolved oxygen to such a degree that the water will not support fish life. A revision of this means of disposal may be required of the concerns now using it; of some of them, not far in the future.

Wherever this means of disposal is still used, due precaution should be taken not to overload the stream. If the organic load becomes excessive, a system of screening and settling tanks can be installed. This, together with chemical flocculation, will frequently remove enough of the solids to make it possible to discharge the effluent into a stream without danger of pollution or of creating an unbalanced condition in the stream. If this preliminary treatment will not suffice, it will be necessary to divert the effluent to a municipal plant or to install equipment for further treatment of these wastes.

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East Brooklyn P. O. BALTIMORE, MD.

In some states it is unlawful to place organic wastes in public waters regardless of the effect they have on the stream.

Wastes discharged into marine or salt water require the following precautions: The discharge must be sufficiently deep to be covered at all times. The most favorable tidal currents should be plotted and the waste discharged into these to avoid washing back to shore. Salt water has a tendency to flocculate the solids from sewage which also requires a strong current to avoid accumulations at the end of the discharge pipe. Larger solids sometimes can be ground and discharged into plant wastes in salt-water disposal systems.

2. *Screening of solids.* Efficiency of all liquid-waste disposals is dependent upon thorough screening. This should be done through a 30-mesh-to-the-inch screen; smaller sizes are inadequate, and little benefit is derived from them. Owing to the size of the mesh, the screens will tend to clog easily. Probably this can best be corrected by frequent cleaning with a steam hose or a continuous water spray.

There is a variety of equipment for screening cannery wastes. Most common are the rotary and vibrating screens. The former are often constructed by the plant, and the latter are usually of commercial construction.

Solids from screens are discharged into bucket or open chain-and-slat conveyors. The conveyors usually discharge into a large holding bin, and the solids are later hauled away.

3. *Garbage disposal.* Other solids are removed from the plant by screw conveyors and by filling into barrels. When the barrel method is used, steel barrels should be selected whenever possible as these are easier to clean, and carryover of odors and vinegar fly breeding are not so common. These barrels can be washed readily by inverting over a jet with a foot-operated valve; or, if this is not available, washing with a hose will usually suffice.

Due consideration should be given to the use of soiled wastes that can be utilized as by-products either by drying or as silage and using as stock feed or manufactured into other products such as alcohol, vinegar, and bland sirups. Often some profits can be realized in this manner, or the costs of disposal minimized. If these solids are hauled away, they may be disposed of at municipal dumping grounds; or, if private disposal is necessary, it may be most economical to dump them in open field areas, isolated so that odors, flies, or rodents will not be a nuisance factor. In some areas the dump can be well covered (2 feet) with earth, which will prevent much of the nuisance danger. Other means of garbage disposal are used, but few are as satisfactory or as applicable to food industries as the fill-and-cover method just described.

4. *Land irrigation.* Where municipal plants or dilution methods cannot be used, irrigation farms, sand filter beds, and lagoons are used. Both the irrigation and filter-bed methods are intermittent operations, so ample area must be provided. The ground is usually cultivated or disked after each application. Irrigation can be practiced on farm crops, usually orchard or row crops, or applied on special furrowed irrigation farms. In either case the addition of lime may be required to readjust the soil pH. The filter bed is a sandy, level area on which the liquids are discharged intermittently, followed by disking to break up the surface and control weed growth. Both types of disposal should be located and constructed as to avoid contamination of near-by water. It is important that neither system be located on limestone deposits, as direct drainage causing pollution may occur. If much lye is present in the waste from lye-peeling operations, the filter bed is soon clogged. Domestic sewage is usually acid and has favorable possibilities as a soil-neutralizing agent after the passage of an alkaline industrial waste. Due precautions must be taken not to discharge raw domestic sewage in this manner, as disease outbreaks may result.

5. *Lagooning.* Lagooning is frequently used where a more direct disposal method is not available. There are two types of lagoons in use:

a. A series consisting of several lagoons. These are connected in a series with up to 50 per cent of the effluent from the last lagoon being recirculated. Oxygen replenishment is accomplished by surface aeration and by the growth of green algae which produce oxygen during sunlight. The retention period in these lagoons should be at least 20 days, and the last lagoon often becomes supersaturated with oxygen. The last lagoon is pumped back to the first lagoon to supply the necessary oxygen to control odors and facilitate stabilization by aerobic organisms.

b. The single large lagoon. This is favored in most cannery operations. The size of these lagoons depends upon the depth of the liquid. A depth of 3 feet is considered a minimum depth. 1.02 acres of water surface will be required per million gallons of waste; 4 foot depth, 0.77 acres; 5 feet depth, 0.61 acres.

Depths greater than 5 feet are not recommended. An average of 25 gals. of waste water per case of canned goods packed can be used in estimating the size lagoon needed. This will vary considerably with different products. In the large single lagoon, oxygen replenishment is accomplished through addition of sodium nitrate to supply about 20 per cent of the five-day B.O.D. of the waste. Approximate quantities per 1,000 No. 2 cases are: early peas, 200 lb.; late peas, 150 lb.; corn, 100 to 120 lb.; lima beans, 80 to 100 lb.

For further chemical treatment of lagoons using sodium nitrate it is best to refer to the original work reported in the National Canners *Bulletin* No. 29-L, "Cannery Waste Disposal in Lagoons," Washington, D. C., April, 1945.

Lagoons are usually constructed to dispose of the liquids by leaching into the soil and by evaporation; or by emptying into streams during high water after the waste has been completely stabilized.

6. *Chlorine.*—If offensive odors occur at any phase of liquid-waste disposal, chlorine up to 50 p.p.m. can be added. Fifteen p.p.m. is near the limit that can be used if crop irrigation is practiced.

7. *Trickling filters.* — Trickling filters have been used for the stabilization of industrial wastes, but are not very satisfactory because of the seasonal activity of many plants. Stabilization depends on the biological film formed on the rock in the filter. It takes several weeks for this film to become established after a period of shutdown. The same is true of the activated sludge process.

8. *Chemical flocculation and sedimentation.*—Chemicals such as ferric chloride, ferric sulfate, chlorinated copperas, and alum are sometimes used as an aid to flocculation. Sedimentation is sometimes used both with and without chemical flocculation to remove a portion of the settleable solids from the wastes.

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CALENDAR OF EVENTS

AUGUST 13-16, 1946—38th Annual Convention, Vegetable Growers Association of America, Horticultural Hall, Boston, Mass.

AUGUST 21-24, 1946—Annual Convention and Exhibit, National Food Distributors Association, Hotel Sherman, Chicago, Ill.

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FOR SALE—Good 50 gal. Steam Jacketed Copper Kettle, $80.00. Mrs. Hugh Kephart, R. 3, Dowagiac, Mich.

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WANTED—Can Labeler, adjustable Burt preferred that will label fibre, tin top and bottom cans 2¼ x 6 inches. State condition, age and price. Adv. 46109, The Canning Trade.

WANTED—1 Chisholm Scott Pea Viner, with feeder. Give full particulars as to what you have to offer. Adv. 46110, The Canning Trade.

WANTED—Urschel Dicer in good condition. Please wire giving model, attachments, price. Rogers Bros. Seed Co., 308 W. Washington St., Chicago 6, Ill. Randolph 3526.

WANTED—1 Haynie Hot Water Tomato Scalder. Give full particulars and price first letter. Adv. 46112, The Canning Trade.

MISCELLANEOUS

WANTED—All kinds of canned foods. Please submit prices and samples. Interstate Bedding Co., 1234 W. Kinzie St., Chicago, Ill.

THERMOMETERS—We repair Mercurial Indicating Thermometers, Dial Thermometers and Recording Thermometers of all makes. Instruments are reconditioned like new. Satisfaction guaranteed. For economical savings ship your Thermometers to: Nurnberg Thermometer Co., 124 Livingston St., Brooklyn, N. Y.

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WANTED—Plant Foreman to assume complete charge of extensive canning operation, preserving and sundry operations. Located in the Southwest. Good salary and percentage deal in addition. Adv. 4665, The Canning Trade.

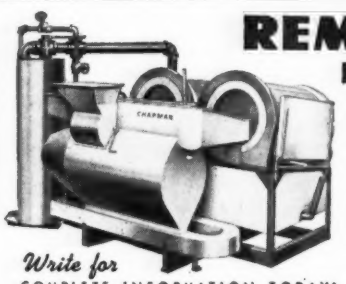
WANTED—Plant Superintendent. Must be experienced in canned food production, including supervision of plant employees. Prefer man with experience in canning stringless beans, peas, spinach, corn, tomatoes, tomato products, beets, carrots, and other vegetables. Technical education preferred. Good salary. Wire immediately stating references, age, experience and when you can go to work. Lord-Mott Co., Inc., Foot of Fell St., Baltimore 31, Md.

WANTED—Large Food Processor in Southwestern Pennsylvania needs Research Chemists with Ph.D. Degrees. Prefer experience in the food or related fields. Age, under 35 years. Salary will be commensurate with qualifications, range up to $8,000. Adv. 46113, The Canning Trade.

WANTED—Office Manager, by food processing plant in Northern Indiana. Experienced man in branch and industrial accounting, capable of managing office of 30 to 40 persons. Permanent position, good future with nationally known manufacturer. In replying state age, education, experience, availability date, wages expected. All replies will be treated confidentially. Adv. 46114, The Canning Trade.

WANTED—Plant Superintendent. A man who can get results. Experienced man capable of supervising all manufacturing operations in food processing plant located in Northern Indiana, employing 300 to 400 people. Canning experience desirable but not absolutely essential. Excellent opportunity with a progressive company. In replying state age, education, experience, availability date, wages expected. All replies will be treated confidentially. Adv. 46115, The Canning Trade.

WANTED—Chief Engineer. Man capable of supervising high pressure boiler plant, equipment and building maintenance in food processing plant located in Northern Indiana. Permanent position with well known company. In replying state age, education, experience, availability date, wages expected. All replies will be treated confidentially. Adv. 46116, The Canning Trade.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SMILE AWHILE

There is a saving grace in a sense of humor

Contributions Welcomed

CONVERSATION

We overheard two soldiers talking on a crosstown bus last week. As usual, they were discussing money. As usual we listened.

"I certainly need ten bucks," said one anxiously, "I need ten bucks something awful. And I haven't got the slightest idea where I can get it?"

"Well that's a relief," said the second, "I was afraid you were going to try to get it from me."

\- - -

Bricklayer: "Hello, Bert. Where is that helper you took on—the one that used to be an artist?"

Second Bricklayer: "Haven't you heard? Soon as he laid a couple of bricks he stepped back off the scaffold to admire his work."

POKER

Tommy Atkins and a doughboy sat in a poker game together somewhere in France. The Britisher held a full house, the American four of a kind.

"I raise you two pounds," quoth Tommy.

The Yankee did not hesitate.

"I ain't exactly onto your currency, but I'll bump it up four tons."

\- - -

Grandson had made good in the city and Grandma had come to visit him. He took her to her first night club. She took one look at the chorus and said: "Gracious, Junior, we've come too late. They're ready for bed."

AIN'T HE DUMB

A curvesome cutie had broken her glasses. She took the remains back to the optometrist. "Will I have to be examined all over?"

"No," replied the optometrist, "just your eyes."

\- - -

Ferdinand the bull found a kid glove. He looked at it for a few minutes then picked it up and sauntered over to the cow pasture. "Girls," he bellowed, "did one of you lose a 'bra'?"

\- - -

A drunk came into the bar, sat down, ordered a beer and was drinking it, when in through the door came a horse.

The horse sat down and ordered a martini.

The bartender mixed it and set it down in front of him.

"You forgot the olive," said the horse.

"Sorry," said the bartender, and he dropped an olive in the drink.

The horse then drank the martini and walked out.

Calling the bartender over, the drunk said, "That's strange."

"Oh no," replied the barkeep, "I often forget the olive."

\- - -

Outside the toy factory the storm raged furiously. Inside the machines were silent.

The enraged owner dashed up to the night foreman.

"Why aren't you turning out your usual quota of toy animals?"

The foreman drew himself up to his full height as he replied: "I wouldn't turn out a dog on a night like this."

\- - -

Girl Friend: "If wishes came true, what would you wish for?"

He: "Oh, I'm afraid to tell you. I've been wishing for a kiss."

Girl Friend: "Go ahead, you sap, what do you think I started this wishing business for?"

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United Co., Westminster, Md.

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Frank Hamachek Machine Co., Kewaunee, Wis.

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CLOCKS, Process Time.
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CONVEYORS, Hydraulic.
Berlin Chapman Company, Berlin, Wis.
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COOKERS, Continuous, Agitating.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio
A. K. Robins & Co., Inc., Baltimore, Md.

COOLERS, Continuous.
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Chisholm-Ryder Co., Niagara Falls, N. Y.
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Chisholm-Ryder Co., Niagara Falls, N. Y.
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Lee Metal Products Co., Inc., Philipsburg, Pa.
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Chisholm-Ryder Co., Niagara Falls, N. Y.
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A. K. Robins & Co., Inc., Baltimore, Md.

SEWAGE DISPOSAL SYSTEMS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

SIEVES AND SCREENS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

SPEED REGULATORS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.

SYRUPERS AND BRINERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

TANKS, Metal, Glass Lined, Wood.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio
F. H. Langsenkamp Co., Indianapolis, Ind.
Lee Metal Products Co., Inc., Philipsburg, Pa.
A. K. Robins & Co., Inc., Baltimore, Md.

VACUUM PANS.
Hamilton Copper & Brass Works, Hamilton, Ohio
F. H. Langsenkamp Co., Indianapolis, Ind.
Lee Metal Products Co., Inc., Philipsburg, Pa.

WASHERS, Fruit, Vegetable.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.
The United Co., Westminster, Md.

BEET CANNING MACHINERY

Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

CAN MAKERS' MACHINERY

E. W. Bliss Co., Brooklyn, N. Y.
Cameron Can Mchy. Co., Chicago, Ill.
General Machinery Corp., Hamilton, Ohio

CORN CANNING MACHINERY

CORN COOKER-FILLERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

CORN CUTTERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Morral Bros., Morral, Ohio
A. K. Robins & Co., Inc., Baltimore, Md.
The United Co., Westminster, Md.

CORN HUSKERS AND SILKERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Morral Bros., Morral, Ohio
A. K. Robins & Co., Inc., Baltimore, Md.
The United Co., Westminster, Md.

CORN SHAKERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
A. K. Robins & Co., Inc., Baltimore, Md.

CORN TRIMMERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Morral Bros., Morral, Ohio.
Sinclair-Scott Co., Baltimore, Md.
The United Co., Westminster, Md.

WHERE TO BUY — Continued

CORN WASHERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.
The United Co., Westminster, Md.

FISH CANNING MACHINERY

Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

FRUIT CANNING MACHINERY

Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
United Co., Westminster, Md.

KRAUT MACHINERY

Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

MILK CANNING MACHINERY

Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.

PEA CANNERS' MACHINERY

BLANCHERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
United Co., Westminster, Md.

CLEANERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.
United Co., Westminster, Md.

GRADERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.

HULLERS AND VINERS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
F. Hamachek Machine Co., Kewaunee, Wis.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.

VINER APRONS.
Berry Canvas Goods, Inc., Philadelphia, Pa.

PICKING TABLES.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
United Co., Westminster, Md.

WASHERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
Sinclair-Scott Co., Baltimore, Md.
United Co., Westminster, Md.

PINEAPPLE MACHINERY

Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

PRESERVERS' MACHINERY

Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

SNAP BEAN MACHINERY

BLANCHERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.
United Co., Westminster, Md.

CUTTERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

GRADERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

PICKING TABLES.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

SNIPPERS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

TOMATO CANNING MACHINERY

EXHAUSTERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

PEELING KNIVES.
Ayars Machine Co., Salem, N. J.
Chisholm-Ryder Co., Niagara Falls, N. Y.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

PEELING TABLES, Continuous.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

SCALDERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
A. K. Robins & Co., Inc., Baltimore, Md.

WASHERS.
Ayars Machine Co., Salem, N. J.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

TOMATO PRODUCTS & JUICE MACHINERY

COOKING COILS for Kettles and Tanks.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio
F. H. Langsenkamp Co., Indianapolis, Ind.
Lee Metal Products Co., Inc., Philipsburg, Pa.
A. K. Robins & Co., Inc., Baltimore, Md.

JUICE EXTRACTORS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

JUICE HEATERS.
Berlin Chapman Company, Berlin, Wis.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio
F. H. Langsenkamp Co., Indianapolis, Ind.
Lee Metal Products Co., Inc., Philipsburg, Pa.
A. K. Robins & Co., Inc., Baltimore, Md.

KETTLES.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
Hamilton Copper & Brass Works, Hamilton, Ohio
F. H. Langsenkamp Co., Indianapolis, Ind.
Lee Metal Products Co., Inc., Philipsburg, Pa.
A. K. Robins & Co., Inc., Baltimore, Md.

PULPERS AND FINISHERS.
Chisholm-Ryder Co., Niagara Falls, N. Y.
Food Machinery Corporation, Hoopeston, Ill.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

GENERAL SUPPLIES

BASKETS.
Jersey Package Co., Bridgeton, N. J.
Planters Mfg. Co., Portsmouth, Va.
Riverside Manufacturing Co., Murfreesboro, N. C.

BOOKS, on Canning, Formula, Etc.
A Complete Course in Canning
The Almanac of the Canning Industry.

BEDDING EQUIPMENT.
Interstate Bedding Co., Chicago, Ill.

BOXES, Corrugated or Solid Fibre.
Eastern Box Company, Baltimore, Md.

CANS, Tin, All Kinds.
American Can Co., New York City
Continental Can Co., New York City
Crown Can Co., Baltimore, Md.

CANVAS GOODS.
Berry Canvas Goods, Inc., Philadelphia, Pa.

INSURANCE, Canners.
Canners' Exchange, Lansing B. Warner, Chicago
Food Industries Federation, Chicago 26, Ill.
Universal Underwriters, Kansas City 6, Mo.

LABELS.
Gamse Litho. Co., Baltimore, Md.
R. J. Kittredge & Co., Chicago, Ill.
Piedmont Label Co., Bedford, Va.
Simpson & Doeller Co., Baltimore, Md.
Stecher-Traung Litho. Corp., Rochester, N. Y.
United States Printing & Litho. Co., Cincinnati, O.

LABORATORIES, for Analysis of Goods, Etc.
American Can Co., New York City
Continental Can Co., New York City
National Canners Assn., Washington, D. C.

PASTE, CANNERS'.
Dewey & Almy Chemical Co., Cambridge, Mass.
F. H. Langsenkamp Co., Indianapolis, Ind.
A. K. Robins & Co., Inc., Baltimore, Md.

SALES CONSULTANTS.
Bob White Organization, Chicago 11, Ill.

SALT.
Diamond Crystal Salt Co., Inc., St. Clair, Mich.
Worcester Salt Co., New York City

SEASONING.
Basic Vegetable Products Co., Vacaville, Cal.

SEEDS, Canners', All Varieties.
Associated Seed Growers, Inc., New Haven, Conn.
Corneli Seed Co., St. Louis 2, Mo.
Michael-Leonard Co., Sioux City, Ia.
Northrup, King & Co., Minneapolis, Minn.
Rogers Bros. Seed Co., Chicago, Ill.
F. H. Woodruff & Sons, Inc., Milford, Conn.
S. D. Woodruff & Sons, Inc., Orange, Conn.

SEEDS, PEA AND BEAN.
Associated Seed Growers, Inc., New Haven, Conn.
Corneli Seed Co., St. Louis 2, Mo.
Gallatin Valley Seed Co., Bozeman, Mont.
Michael-Leonard Co., Sioux City, Ia.
Northrup, King & Co., Minneapolis, Minn.
Rogers Bros. Seed Co., Chicago, Ill.
Washburn-Wilson Seed Co., Moscow, Idaho
F. H. Woodruff & Sons, Inc., Milford, Conn.
S. D. Woodruff & Sons, Inc., Orange, Conn.

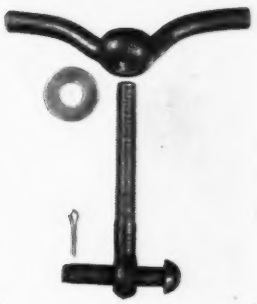
SEED, TOMATO.
Associated Seed Growers, Inc., New Haven, Conn.
Corneli Seed Co., St. Louis 2, Mo.
Michael-Leonard Co., Sioux City, Ia.
Northrup, King & Co., Minneapolis, Minn.
Francis C. Stokes Co., Vincentown, N. J.
F. H. Woodruff & Sons, Inc., Milford, Conn.
S. D. Woodruff & Sons, Inc., Orange, Conn.

SEED TREATMENT.
Northrup, King & Co., Minneapolis, Minn.
U. S. Rubber Co., New York City

SUGAR, DEXTROSE.
Corn Products Sales Co., New York, N. Y.

ROBINS FORGED STEEL

WING NUTS



EYE BOLTS

FOR PROCESS RETORTS

To increase efficiency replace the old type cast iron wing nuts and ordinary steel eye bolts with the Robins Forged Steel Wing Nuts and Eye Bolts. The forged steel wing nuts will outlast the old type cast iron wing nuts and eliminate breakage, assuring a greater safety factor.

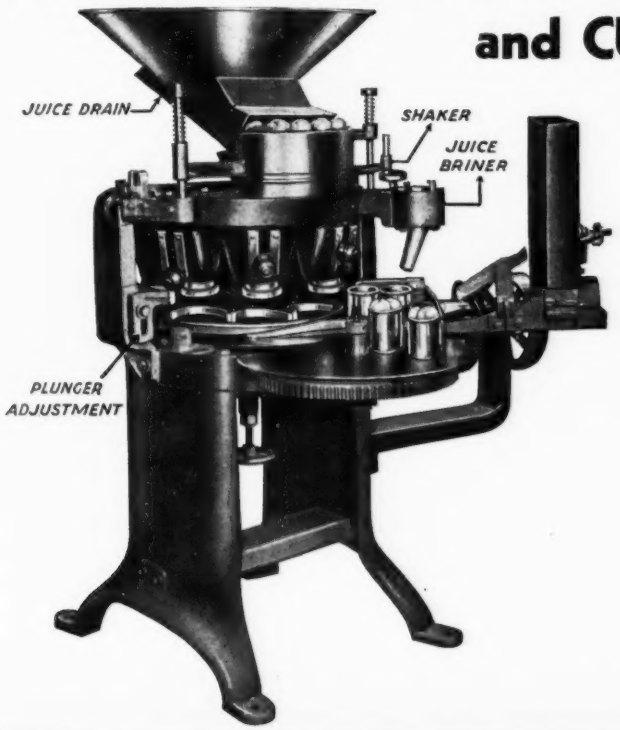
Manufactured By

A. K. ROBINS & COMPANY, INC.

BALTIMORE 2, MARYLAND

Manufacturers of Food Processing Machinery for Canning, Freezing, Dehydrating

AYARS HI-SPEED 9 Pocket UNIVERSAL TOMATO and CUT STRING BEAN FILLER



For filling whole tomatoes

Measures each can full alike without crushing

Larger hopper and longer shaker. Fills more whole and even

Large juice pan—Double valve juicer

Soon pays for itself in labor saved over hand fill

Capacity up to 180 cans per minute.

Prices on request

AYARS MACHINE COMPANY

Salem, New Jersey

Which Keep Your Growers Smiling

Now more than ever, your growers' success is your success . . . and Woodruff 'seed engineering' is paying dividends to both processor and grower.

The many varieties of Woodruff peas developed especially for packers are an outstanding example of how Woodruff insures both the quality and quantity of your pack . . . and a profitable partnership for you and your growers.

Here are a few of the dependable varieties of peas we recommend to canners.

Alaska, H. F. 30 (58 days)
Alaska, Wilt Resistant (58-60 days)
Surprise (58-61 days)
Early Badger (58-60 days)
Perfected Wales (72 days)
Wisconsin Early Sweet (58-61 days)
Miracle (70 days)
Perfection, Wilt Resistant (70-73 days)
Stuart's Perfection (72 days)
Profusion (75-78 days)
Mammoth Green (76-78 days)

F. H. Woodruff & SONS, INC.

F. H. WOODRUFF & SONS, INC.

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